Center for Self Organizing Intelligent Systems

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Background

Established in 1993 to assist Utah companies in developing marketable products which use the technology of intelligent systems.

FY94-95 Overview

Current

1994-95 Award	**$150,000**
Matching Funds	$428,904
Patents Pending	2
Copyright Received	3
License Agreements	**0**
Spin-off Companies	0
Companies Assisted	4
Industry Jobs Created	6
Center Jobs Created	10

Cumulative Overview

Cumulative

Awards	$350,000
Matching Funds	$889,904
Copyright Received	3
License Agreements	3
Spin-off Companies	1

Technologies

- Intelligent Systems Technology generally includes any device and/or software concept which attempts to artificially replicate unique cognizance and control abilities of the human mind.
- Artificial neural networks are designed to mimic the ability of the brain and central nervous system to learn and generalize from past experience.
- Fuzzy logic was introduced as a way of emulating the reasoning processes fundamental to human intelligence.
- Virtual presence controllers attempt to place a remote human operator or controller in a virtual environment identical to that encountered by the controlled process.

Center Highlights

- Center projects to date that have resulted in **products** include: two irrigation control systems, two applications to exercise machines, autonomous micro-robotic vehicle control products, a coin recognition product, intelligent wheelchair control augmentation systems for the severely handicapped and aged.
- The vehicle control project has developed into two **product spin-offs**: a vehicular sensing platform for hazardous waste-site applications and a "hands-on" Mars exploration educational kit.
- Campbell Scientific, Inc. projects **total sales** of irrigation controllers to be $5 million a year over a seven-year period.
- ProForm Fitness Products, Inc. estimates **first-year sales** of exercise equipment with center developed fuzzy-belt controller and fuzzy "spotter" to be $40 million.
- The Center has completed **technology transfer** of the intelligent coin recognition machine to a **start-up company**.
- Monetary Services, Inc., using a Center-developed neural network and computer-imaging technology, estimates a minimum of 30,000 installation sites for a device to be leased for $1,000 a month.